

## SOIL NAIL WALL - TYPICAL SECTION

\*SEE CONCRETE DITCH BEHIND WALL DETAILS.

\*\*SEE PLANS FOR FINISHED GRADE OR END BENT SLOPE DETAILS.

## NOTES:

FOR SOIL NAIL RETAINING WALLS, SEE SOIL NAIL RETAINING WALLS PROVISION.

BEFORE BEGINNING SOIL NAIL WALL DESIGN FOR RETAINING WALL NO.2, SURVEY WALL LOCATION AND SUBMIT A REVISED WALL PROFILE VIEW (WALL ENVELOPE) FOR REVIEW. DO NOT START WALL DESIGN OR CONSTRUCTION UNTIL THE REVISED WALL ENVELOPE IS ACCEPTED.

DESIGN RETAINING WALL NO. 2 FOR THE FOLLOWING:
1) H = DESIGN HEIGHT + EMBEDMENT

2) DESIGN LIFE = 100 YEARS 3) MINIMUM EMBEDMENT DEPTH = 2 FT

4) IN-SITU ASSUMED MATERIAL PARAMETERS FOR COLLUVIUM, ALLUVIUM AND FILL IN-SITU ASSUMED MATERIAL PARAMETERS ABOVE ELEVATION 3062 FT

UNIT WEIGHT, g = 120 LB/CF FRICTION ANGLE, f = 32 DEGREES

COHESION, c = 0 LB/SF 5)IN-SITU ASSUMED MATERIAL PARAMETERS FOR RESIDUAL ABOVE ELEVATION 3,055 FT:

UNIT WEIGHT, g = 125 LB/CF FRICTION ANGLE, f = 34 DEGREES COHESION, c = 0 LB/SF

6)IN-SITU ASSUMED MATERIAL PARAMETERS FOR PARTIALLY WEATHER ROCK ABOVE ELEVATION 3050 FT:

UNIT WEIGHT, g = 135 LB/CF FRICTION ANGLE, f = 38 DEGREES

COHESION, c = 0 LB/SF 7) IN-SITU ASSUMED MATERIAL PARAMETERS ROCK:

UNIT WEIGHT, g = 150 LB/CF FRICTION ANGLE, f = 45 DEGREES

COHESION, c = 0 LB/SF

DRILLING OPERATIONS WILL LIKELY ENCOUNTER COLLUVIAL/ALLUVIAL BOULDERS, CONTRACTOR SHALL USE DRILLING TECHNIQUES THAT WILL MAINTAIN HOLE STABILITY AND ALLOW ALL NAILS TO BE INSTALLED TO THEIR REQUIRED DESIGN DEPTHS.

(1) VERIFICATION TEST AND (2) PROOF TESTS WILL BE REQUIRED UNLESS OTHERWISE DIRECTED BY GEOTECHNICAL OPERATIONS ENGINEER.

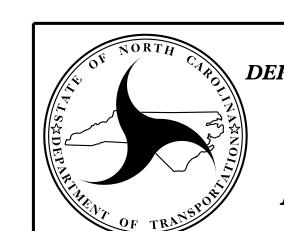
PROJECT NO.:

B-5380

**AVERY** 

COUNTY STATION: 12+65.00 -L- to 13+50.00 -L-

SHEET 3 OF 3



NORTH CAROLINA **DEPARTMENT OF TRANSPORTATION DIVISION OF HIGHWAYS** 

**GEOTECHNICAL ENGINEERING UNIT**  SOIL NAIL OPTION FOR RETAINING WALL #2

**REVISIONS** SHEET NO. DATE NO. DATE

DATE: 9/14/16 PREPARED BY: MHS REVIEWED BY: SCC DATE: 9/14/16